

IN THE CLAIMS:

Claims 1-33 have been cancelled without prejudice by a previous amendment.

Please amend claims 34, 52, 54, 58 and add new claims 67-70 as follows.

Claims 1-33 (Cancelled)

34. (Currently Amended) A method for performing random access in a mobile communication network having a base transceiver station and a plurality of mobile stations, comprising the steps of:

a) transmitting from said base transceiver station to said plurality of mobile stations a parameter defining allowed access slots of at least one physically existing random access channel ~~used between said base transceiver station and a mobile station to said mobile station;~~

b) receiving said parameter at a mobile station and determining, at said mobile station, said allowed access slots ~~at said mobile station~~ based on said parameter; and

c) using, at said mobile station, at least one of said determined allowed access slots for performing a random access operation to said base transceiver station.

35. (Previously Presented) A method according to claim 34, wherein said parameter is transmitted via a broadcast channel.

36. (Previously Presented) A method according to claim 35, wherein said broadcast channel is the BCH channel of a WCDMA system.

37. (Previously Presented) A method according to claim 35, wherein said random access is performed via the PRACH uplink channel and the AICH downlink channel of the WCDMA system.

38. (Previously Presented) A method according to claim 34, wherein said parameter defines a subset of available access slots of said mobile communication network.

39. (Previously Presented) A method according to claim 38, wherein said subset is determined by another parameter transmitted from said base transceiver station to said mobile station.

40. (Previously Presented) A method according to claim 39, wherein said other parameter is a timing parameter defining a transmission timing of an uplink access slot.

41. (Previously Presented) A method according to claim 39, wherein said other parameter is transmitted via a broadcast channel.

42. (Previously Presented) A method according to claim 39, wherein the bit number of said parameter is changed in dependence on said other parameter.

43. (Previously Presented) A method according to claim 42, wherein a transmission of a preamble signature or an acquisition indication is disabled in dependence of the value of said parameter.

44. (Previously Presented) A method according to claim 42, wherein an index of an allowed uplink access slot is calculated on the basis of the value of said parameter and a frame number of a frame used for transmitting an uplink access slot.

45. (Previously Presented) A method according to claim 44, wherein said index is calculated by using the equation

$$i = 3 \cdot N + (F \text{ modulo } 3)$$

where $0 \leq N \leq 2$,

wherein F and N are integer numbers, and F denotes said frame number, and wherein only access slots having indices within the range 0 to 7 are valid.

46. (Previously Presented) A method according to claim 44, wherein said index is calculated by using the equation

$$i = 4 \cdot N + (\Gamma \text{ modulo } 4)$$

where $0 \leq N \leq 3$,

wherein Γ and N are integer numbers, and Γ denotes a frame number indicating two consecutive frame numbers of said frame used for transmitting an uplink access slot, and wherein only access slots having indices within the range 0 to 14 are valid.

47. (Previously Presented) A method according to claim 45, wherein said parameter determines an offset to be added to said calculated index.

48. (Previously Presented) A method according to 34, wherein an index of an allowed uplink access slot is determined on the basis of the value of said parameter irrespective of a frame number of a frame used for transmitting an uplink access slot.

49. (Previously Presented) A method according to claim 34, wherein an allowed downlink slot is determined by adding a predetermined value to an index of a received uplink slot.

50. (Previously Presented) A method according to claim 49, wherein said predetermined value is selected in accordance with a timing parameter defining a transmission timing of said uplink slot.

51. (Previously Presented) A method according to claim 34, wherein bit values of a binary expression of said parameter determines a combination of calculated indices obtained for other values of said parameter, said other values corresponding to the binary weights of said binary expression.

52. (Currently Amended) A system for performing random access in a mobile communication network, comprising:

a) a base transceiver station ~~a network element~~ arranged for transmitting a parameter defining allowed access slots of at least one physically existing random access channel; and

b) a plurality of mobile stations arranged for receiving said parameter, for determining said allowed access slots based on said parameter, and for using at least one of said determined allowed access slots for performing a random access operation to a said base transceiver station.

53. (Previously Presented) A system according to claim 52, wherein said network element is a WCDMA base transceiver station and said mobile station is a WCDMA mobile station.

54. (Currently Amended) A network element for a mobile communication network comprising a plurality of mobile station, comprising:

a) setting means for setting a parameter defining allowed access slots of at least one physically existing random access channel ~~for performing a random access operation;~~
and

b) transmitting means for transmitting said parameter to said plurality of mobile stations.

55. (Previously Presented) A network element according to claim 54, wherein said network element is a WCDMA base transceiver station.

56. (Previously Presented) A network element according to claim 54, wherein said transmitting means is arranged to transmit said parameter via a broadcast channel.

57. (Previously Amended) A network element according to claim 54, wherein said setting means is arranged to set said parameter in dependence on a timing parameter

value defining a transmission timing of an uplink access slot in said random access operation.

58. (Currently Amended) A mobile station for a mobile communication network having at least one network element allowing a random access operation, comprising:

a) receiving means for receiving from said network element a parameter defining allowed access slots of at least one physically existing random access channel for said random access operation ~~from said network element~~;

b) determining means for determining said allowed access slots based on said ~~received~~ parameter received from said network element; and

c) transmitting means for transmitting a random access message to said network element using at least one of said determined allowed access slots.

59. (Previously Presented) A mobile station according to claim 58, wherein said receiving means is arranged to receive said parameter via a broadcast channel.

60. (Previously Presented) A mobile station according to claim 59, wherein said determining means is arranged to determine said allowed access slots on the basis of said received parameter and a timing parameter received via said broadcast channel.

61. (Previously Presented) A mobile station according to claim 58, wherein said determining means is arranged to calculate an index of an allowed uplink access slot on the basis of the value of said received parameter and a frame number of a frame used for transmitting an uplink access slot.

62. (Previously Presented) A mobile station according to claim 58, wherein said determining means is arranged to determine an index of an allowed uplink access slot on the basis of the value of said parameter irrespective of a frame number of a frame used for transmitting an uplink access slot.

63. (Previously Presented) A mobile station according to claim 58, wherein a selection means is provided for randomly selecting from allowed access slots determined by said determining means an uplink access slot to be used for transmitting a preamble of said random access message.

64. (Previously Presented) A mobile station according to claim 63, wherein consecutive preambles are transmitted a predetermined number of access slots apart.

65. (Previously Presented) A mobile station according to claim 64, wherein said predetermined number depends on a timing parameter received by said receiving means.

66. (Previously Presented) A mobile station according to claim 64, wherein said selection means is arranged to perform said random selection any time a preamble needs to be transmitted.

67. (New) A method for performing random access in a mobile communication network, comprising the steps of:

- a) receiving a parameter defining allowed access slots of at least one physically existing random access channel for a random access operation;
- b) determining said allowed access slots based on said parameter; and
- c) transmitting a random access message using at least one of said determined allowed access slots.

68. (New) A method for performing random access in a mobile communication network, comprising the steps of:

- a) receiving information about a set of available uplink access slots of a random access channel;
- b) deriving available uplink access slots, in a next full access slot set, for the set of available uplink access slots; and
- c) randomly selecting one access slot among the available uplink access slots for performing a random access procedure.

69. (New) A method for performing random access in a mobile communication network, comprising the steps of:

a) receiving a set of available RACH sub-channels, a RACH sub-channel defining a sub-set of a total set of uplink access slots;

b) deriving available uplink access slots, in a next full access slot set, for the set of available RACH sub-channels; and

c) randomly selecting one access slot among the available uplink access slots for performing a random access procedure.

70. (New) A method for performing random access in a mobile communication network, comprising the steps of:

a) receiving an access parameter message sent on a broadcast channel, the access parameter message defining allowed transmission slots in which random access channel transmissions are limited to occur, wherein the allowed transmission slots are dictated by slot offset and slot duration parameters;

b) calculating an allowed transmission slot based on the slot offset and slot duration parameters; and

c) transmitting a random access message using the allowed transmission slot.